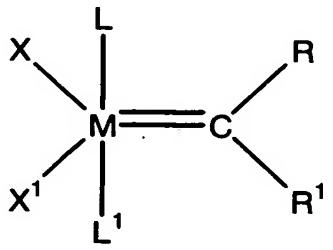
Claims

1. A process for the preparation of a hydrogenated nitrile rubber comprising reacting a nitrile rubber in the presence of hydrogen, optionally at least one co-olefin, and in the presence of at least one compound selected from the group consisting of compounds of the general formula I,



Formula I

wherein

M is Os or Ru,

R and R^1 are, independently, hydrogen or a hydrocarbon selected from the group consisting of C_2-C_{20} alkenyl, C_2-C_{20} alkynyl, C_1-C_{20} alkyl, aryl, C_1-C_{20} carboxylate, C_1-C_{20} alkoxy, C_2-C_{20} alkenyloxy, C_2-C_{20} alkynyloxy, aryloxy, C_2-C_{20} alkoxycarbonyl, C_1-C_{20} alkylthio, C_1-C_{20} alkylsulfonyl and C_1-C_{20} alkylsulfinyl,

X and X^1 are independently any anionic ligand,

L is any neutral ligand

L' is selected from any 1-3 disubsituted imidazolidinylidene or 1,3 disubstituted imidazolidine ligand,

2. A process according to claim 1 wherein the process occurs in the absence of any co-olefin.

3. A process according to claim 3 wherein either L is a trialkylphosphine and L^1 is an imidazolidinylidene, X and X^1 are chloride ions and M is ruthenium.

4. A process according to any of claims 1-4 wherein the ratio of compound to nitrile rubber is in the range of from 0.005 to 5.

5. A process according to any of claims claim 1-5 wherein the process is carried out in an inert solvent selected from the group consisting of monochlorobenzene, dichloromethane, benzene, toluene, tetrahydrofuran and cyclohexane.